

CLAIMS

1. Communication apparatus for interfacing between wired and wireless voice/data generating/receiving apparatuses and a physical telephone line of a communication network, comprising:
 - a) Telephone outlet, said outlet being mounted within a wall of a building and includes first and second connecting means, said first and second connecting means being electrically connected to each other and to said physical telephone line, said second connecting means allowing connecting a wired telephone apparatus to said telephone line; and
 - b) Detachable module, said module being designed to be essentially completely embedded within the telephone outlet, whenever inserted into said outlet, and mechanically fitted into, and electrically adapted to cooperate with, said outlet, and having a wireless end and first and second wired ends, said module providing wireless coupling between said voice/data generating/receiving apparatus and said telephone line, by utilizing said wireless end and wired coupling between said module to said telephone line, which is obtained by utilizing said first wired end and said first connection means, said module comprising all the circuit components required for receiving and transmitting the wireless voice/digital information and, if required, to transform the format of said received voice/digital information into a format complying with a communication protocol, or format, that is suitable to be fed to said communication network, and vice versa, said first wired end of said module comprising electrical contacts for providing to said circuit components power, which exists on said telephone line, and signal connectivity, and is capable of mating with said first connection means, said second wired end of said module being designed to be completely embedded within said module, and serving to intermediate between a wired telephone apparatus and said telephone line.

2. Communication apparatus according to claim 1 wherein the telephone outlet has an opening and the module is mechanically and electrically coupled to said outlet by being inserted into said outlet through said opening, the insertion being guided by guiding means that are part of said outlet and said module.
3. Communication apparatus according to claim 2, wherein the guiding means are rib-and-groove guides provided in the telephone outlet and in the module for guiding the insertion of said module into said outlet.
4. Detachable module according to claim 1, wherein said module includes circuit means for transforming voice or digital information into modulated, high frequency or infrared signal, and vice versa, a transceiver, a component that transforms the serial transmission into a parallel transmission, and vice versa, a DSP processor that transforms between communication protocols, and a direct line interface to the preexisting telephone wiring system.
5. Detachable module according to claim 1, wherein said module is utilized as a base-station in a cordless telephone system, while a corresponding voice or digital data generating/receiving apparatus being the handset of said cordless telephone system.
6. Detachable module according to claims 1, 4 or 5, wherein said module is operative by being coupled to a conventional telephone outlet.

7. Method for interfacing between wired and wireless voice/data generating/receiving apparatuses and a physical telephone line of a communication network, which method comprising:
 - a) Mounting a telephone outlet in a wall, said outlet having an opening and a first jack/plug means for providing an electrical connection to said telephone line, and a second jack/plug means for providing, to a wired telephone apparatus, an electrical connection to said telephone line;
 - b) Providing a detachable module that is adapted to be mechanically and electrically coupled to said telephone outlet, by being fully inserted into said telephone outlet, said detachable module comprising projecting plug/jack contact means adapted to be coupled to said first connection means of the telephone outlet, a wireless end, and a second plug/jack contact means, said detachable module containing circuit means for transforming voice or digital information, which is fed to, or received from, said first connection means, into modulated, high frequency radio or infrared signal, or vice versa, and means for allowing feeding analog information to said first wired end of said module, or vice versa, said second wired end of said detachable module allowing direct connection of a wired telephone apparatus to a physical telephone line, via said telephone outlet; and
 - c) inserting said module into said telephone outlet, thereby bringing said first wired end of said module and said first connection means of said telephone outlet into electrical coupling.
8. Method according to claim 7, in which the detachable module is coupled to a conventional telephone outlet.